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**Lecture
Series**



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Mississippi State University

Global Operation of Integrated Decentralized Power Systems with High-Penetration Renewable Energy

ABSTRACT

Power systems are interconnected to provide a reliable and secure source of energy to consumers and to operate at lower cost than systems operating separately. This talk will present a systems framework to effectively coordinate the operations of integrated decentralized power systems, such as between mixed power generations, dispatchable networks and active energy consumers, between power transmission, distribution and microgrid systems, and between onshore and offshore renewable energy systems. The proposed distributed/decentralized modeling and solution methodologies effectively solve such large-scale interconnected power system operation problems with multiple scenarios on the distributed computing cluster and/or the high-performance computing platform, which consequently will offer modern power systems, especially large-scale ones, an efficient, economical, and secure operation with increased flexibility and resilience.

**FRIDAY
NOVEMBER 10, 2017**

NOON - 1:30 P.M.

**COVERDELL CENTER
AUDITORIUM
(Room 175)**

BIOGRAPHY

Dr. Yong Fu is an Associate Professor in the Department of Electrical and Computer Engineering at Mississippi State University. He has been awarded the Tennessee Valley Authority Endowed Professorship in Power Systems Engineering. He received his B.S. and M.S. degrees in Electrical Engineering from Shanghai Jiao Tong University, China, in 1997 and 2002, respectively. In 2006, he received his Ph.D. degree in Electrical Engineering from Illinois Institute of Technology, Chicago. He has over 15 years of research experience in the area of power system operation, control and market, and has published over 80 IEEE journal and conference papers. He was a recipient of the NSF Faculty Early Career Development (CAREER) Award in 2012. He is an IEEE senior member.